B. Project Brief

Title: Multi-State Agency Guidance for Water Quality Trading (Joint Regional Water Quality Trading Agreement): State agencies building shared, regional trading policies for the Pacific Northwest and beyond

Start date: September 1, 2012 End date: September 30, 2015

Director: Bobby Cochran, Executive Director

Willamette Partnership

2550 SW Hillsboro Hwy, Hillsboro, OR 97123

(503) 681-4435

Cochran@willamettepartnership.org

Collaborators:

Ranei Nomura Claire Schary

Water Quality Trading Coordinator Water Quality Trading Coordinator

Oregon Department of Environmental Quality US EPA Region 10

Barry Burnell David Primozich

Water Quality Division Administrator Senior Director of Ecosystem Services

Idaho Department of Environmental Quality The Freshwater Trust

Helen Bressler
Water Quality Program
Washington Department of Ecology

Purpose. Stakeholders across the country recognize the need for common, state agency-led guidance for water quality trading. State regulatory agencies in the Pacific Northwest are ready to develop this common guidance by coming together on a regional trading framework that achieves real water quality improvements, and is structured in a way other states and regions can easily adopt. The goal of this project is to build state agency-approved guidance that is as "off the shelf" as possible, providing other states with an easily customizable template.

Funding from the NRCS Conservation Innovation Grant Program will support state agency effort to development a "Joint Regional Water Quality Trading Agreement" (Joint Regional Agreement). This agreement, to be developed by Oregon Department of Environmental Quality, Idaho Department of Environmental Quality, Washington Department of Ecology, and with active involvement from U.S. Environmental Protection Agency (USEPA) (see attached commitment letters), will provide clear and consistent guidance on water quality trading in Oregon, Washington, and Idaho, including:

- Establishment of quality assurance standards for projects
- Establishment of project verification, credit calculation and registration procedures
- Adoption of common accounting methods

The Joint Regional Agreement will provide needed alignment and consistency among trading programs while maintaining essential state flexibility to address state-specific parameters. Just as the 2003 USEPA Water Quality Trading Policy promoted early programs, this multi-state agreement will drive the next leap in water quality trading by giving potential buyers increased confidence to work with producers, potential sellers certainty on what will count as a credit, and local watershed groups the ability to reduce start-up time and costs by easing transfer of innovation across state lines.

In addition to standardizing program elements in the three-state area, partners will coordinate with water quality trading programs currently under development in the Ohio River Valley, California, and Colorado in an effort to create consistent, multi-state program elements that drive cooperation and shared infrastructure – including a shared credit registration system. The Joint Regional Agreement will be structured, both legally and substantively, in a way that allows other states and regions to adopt or adapt the agreement – substantially easing the development of water quality trading programs in other parts of the country. The project will create a model for the multi-state coordination required as agencies seek to address water quality issues at major basin scales, such as the Chesapeake, Mississippi, Columbia, Colorado and Puget Sound.

By improving agency consistency across states, increasing confidence of buyers and suppliers of water quality improvements, and providing a model for multi-state guidance, the work completed under this proposal will set the stage to accelerate restoration activities on farm, ranch and forest lands, far beyond what would be possible otherwise.

Project Area/Location. This project will span Oregon, Washington and Idaho. The market procedures developed through this project will provide a blueprint for other states seeking to standardize regional market activity. In addition, partners will coordinate with water quality trading programs currently under development in the Ohio River Valley, California, and Colorado.

Project Summary. Under this proposal, Oregon Department of Environmental Quality, Idaho Department of Environmental Quality, Washington Department of Ecology, and USEPA will come together to create a common set of procedures and guidelines, consistent with the Clean Water Act, that will ensure quality and transparency in trading programs – giving buyers, sellers, and the public the confidence to participate.

State agencies, in collaboration with USEPA in its oversight role, will lead most of the components of this project, with the Willamette Partnership providing support in coordination, facilitation, and document management. The project will use Willamette Partnership's proven *Counting on the Environment* process to coordinate science and policy work across state lines and stakeholder interests. A working group of state water quality agency leads, USEPA Region 10, and The Freshwater Trust will review and process the recommendations made from technical groups focusing on the science and measurement of water quality improvements and the policy and protocol issues needed to support trading. The Willamette Partnership will actively facilitate these groups through a series of in-person and telephone meetings over the

course of the project period. The Partnership will also work with the agencies and The Freshwater Trust to conduct other needed stakeholder processes with producers, utilities, environmental groups, and others to complete guidance. Throughout the project, project partners will actively participate in national conversations on the multi-state agency guidance and common tools needed to support water quality trading.

The Joint Regional Agreement will follow a three-tiered structure that establishes consistent agency authorities and processes in Tiers One and Two, but allows individual state flexibility for the specific mechanics of trading in Tier Three:

- Tier One: Multi-state Agency Guidance: Legal authorities, guiding principles, and appropriateness of trades based on USEPA's 2003 Water Quality Trading Policy, but updated based on lessons learned and new information from current trading activity.
- Tier Two: Standard Operating Procedures: Common processes and mechanics shared across trading programs (e.g. considerations for baseline and other eligibility requirements, project quality guidelines, credit verification, monitoring and registration/reporting).
- Tier Three: State Specific Addenda: State-specific appendices that include unique baseline procedures, credit calculation methodologies, discounting and ratio factors, minimum quality standards for allowable conservation practices, etc.

With committed participation from all three state regulatory agencies and USEPA's participation (see attached commitment letters), the likelihood of project success is very high and the timing is ideal. All three state water quality agencies are co-applicants and have had experience working together on multiple environmental standards and guidance documents. The Willamette Partnership has a long history of working constructively with regulatory agencies. Over the last five years Willamette Partnership has helped lay the foundation for Oregon's active water quality trading program by developing credible standards and protocols and building broad consensus and support from public and private partners.

The groundwork is now laid to build the Joint Regional Agreement, but coordination will require a substantial and sustained effort that creates operational standards for credibility and transparency, while maintaining local, state-specific control of trading programs. NRCS Conservation Innovation Grant Program funding for the development of a "Joint Regional Water Quality Trading Agreement" in Oregon, Washington and Idaho will advance the pace, scope and effectiveness of water quality trading in the Pacific Northwest and beyond.

C. Project Description

1. Project background

History. Since the first discussions began in Wisconsin's Fox River in 1981, enthusiasm around water quality trading has grown based on a long list of potential ecological and economic benefits for regulators, communities and producers. USEPA and its state agency counterparts see huge potential in trading, as it requires the rigorous quantification of environmental impacts, and helps drive "green" versus "gray" infrastructure development among regulated point sources. For example, a wastewater treatment plant might offset its phosphorus impacts through the restoration of streamside buffers on agricultural land, rather than through increased filtration at the facility. This potential re-targeting of point source compliance spending on lands with non-point source impacts remains a key goal of water quality regulators around the country.

USDA and its services see huge potential in improving conservation participation among farmers, ranchers and foresters through this same re-targeting of water quality compliance dollars. Dollars once spent on concrete and steel at facilities could instead flow to restoration projects on agricultural land, with corresponding landowner incentive payments. Further, restoration projects boost rural economies through supply and labor purchases, and generally improve community acceptance of conservation practices. In other words, water quality trading could help USDA realize the long-elusive "triple bottom line" of social, economic and environmental benefits from conservation.

Communities facing increasingly rigorous water quality requirements focus on water quality trading programs' potential to save millions in compliance spending. Environmental organizations in those same communities see significant ecological benefits from trading, as restoration projects offer multiple and long-lasting ecosystem benefits. In Oregon, water quality trading to offset one utility's temperature impacts has resulted in more than 35 miles of streamside vegetation restored. Another 30 miles will be required to offset a second utility's "thermal load" over the next few years. In addition to substantially better ecological results, this early trading in Oregon has driven \$20 million in new conservation funding to restore streamside shade, while saving rate payers at these two facilities more than \$70 million dollars.

The potential benefits of trading at scale, as illustrated by these examples from Oregon, are hugely significant for water quality, local communities and producers. Agencies agree, and USEPA issued its Water Quality Trading Policy in 2003, followed by other related documents in 2004 and 2007. USDA developed preliminary guidelines in 2011 and is working on new guidelines to help launch water quality programs in 2012. Oregon, Idaho and Washington state water quality agencies have each established some form of water quality guidance¹.

Washington: http://www.ecy.wa.gov/programs/wq/swqs/WQTradingGuidance_1010064.pdf

Idaho: http://www.deq.idaho.gov/water-quality/surface-water/pollutant-trading.aspx

¹ Oregon: http://www.deq.state.or.us/wq/trading/trading.htm

Non-profit environmental groups have also partnered with state and federal agencies to advance water quality trading. Funded by USEPA and NRCS, Willamette Partnership successfully completed its *Counting on the Environment* process in 2009 that created the infrastructure and regulatory agreements necessary to support trading of multiple ecosystem services in Oregon's Willamette River basin. Other non-profit and service organizations around the country have advanced a variety of "environmental market" efforts.

Still, trading programs in the Pacific Northwest and throughout the U.S. require significant scaling to reach their full potential. Since USEPA issued its 2003 Water Quality Trading Policy, 72 programs have been initiated in the U.S. Of those, only 14 have agricultural producers actively delivering credits that point sources can use for permit compliance under the Clean Water Act (E. Branosky, pers. Comm., 2012). While momentum is clearly building in certain areas, such as Oregon and the Ohio River basin, the time is ripe for more significant encouragement from state water quality agencies on trading, with the continued robust support of USEPA and USDA.

Project Need. What is required now for water quality trading to scale regionally and nationally? Put simply: clarity on trading systems and rules that builds confidence among buyers and sellers of water quality offsets. To date, only eight states (ID, WA, OR, WI, CO, MI, OH, MN) have any current water quality trading guidance at all, with none cooperating across state lines. Agencies implementing the Clean Water Act wrestle with a fundamental tension between a desire for nationally consistent standards and the reality that watersheds need to be managed locally.

Early guidance on water quality trading should now be expanded to include lessons learned from more recent activity, with more states encouraged to participate. Just as the 2003 USEPA guidance broadened acceptance of trading programs and prompted early activity, the next jump will come from state water quality agencies generating joint regional agreements with common, consistent guidance that give potential buyers confidence to work with producers, potential sellers certainty on what will count as a credit, and local watershed groups the ability to reduce start-up time and costs by easing transfer of innovation among states and regions. Under this proposal, state agencies that regulate surface-water quality in the Pacific Northwest (Oregon Department of Environmental Quality, Idaho Department of Environmental Quality, Washington Department of Ecology, and USEPA) will come together to create a common and consistent set of procedures and guidelines that ensure quality and transparency in trading programs – a "Joint Regional Water Quality Trading Agreement".

Dedicated Federal funding will enable state water quality agency staff to focus attention and coordinate efforts to generate the Joint Regional Agreement needed to support credible and transparent trading at scale. The groundwork has been laid, but multi-state coordination will take a substantial and sustained effort to create operational standards for credibility and transparency, while maintaining local, state-specific control of trading programs. Dedicated funding will also enable state agencies to participate in national discussions currently underway to standardize water quality trading elements across the United States. USEPA Region 10 staff will be actively engaged in this project, but no NRCS CIG funds will be used to support USEPA staff involvement.

Likelihood of Project Success. State agencies, in collaboration with USEPA in its oversight role, will lead most of the components of this project, with the Willamette Partnership providing support in coordination, facilitation, and document management (see Figure 1 on page 7). The Partnership's facilitation role was critical during the Counting on the Environment process that successfully establishing a "General Crediting Protocol in Oregon" in 2009, accepted by 25 state and federal regulatory agencies and interest groups. The Willamette Partnership has a long history of working constructively with regulatory agencies and over the last five years has helped lay the foundation for Oregon's active water quality trading program by developing credible standards and protocols and building broad consensus and support from public and private partners. Partnership staff has a high level of expertise in developing multi-agency processes and agreements.

The Pacific Northwest is arguably the best-positioned region in the country to successfully develop a multi-state Joint Regional Agreement. Oregon, Washington and Idaho state water quality agencies are committed project partners and have experience working together on other complex, multi-state water quality issues, such as "total maximum daily load" development for the Columbia and Snake Rivers, Columbia River total dissolved gas criteria, USEPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards, etc. With cooperation from all three state regulatory agencies assured, the likelihood of project success is very high and the timing is ideal.

2. Project objectives

The primary objective of this effort is to secure multi-state consensus and USEPA support for a Joint Regional Agreement that will include: multi-state agency guidance; general restoration project and BMP quality standards; credit tracking procedures; and accounting methods for "credits" that can be used in water quality trading for nutrients (nitrogen and phosphorus) and temperature in Oregon, Washington, and Idaho. All three of these states and USEPA have some form of guidance or framework in place to inform water quality trading, providing a strong foundation from which to develop a Joint Regional Agreement. This project will foster needed alignment and consistency among trading programs while maintaining essential state flexibility to address state-specific parameters.

In addition to standardizing program elements in the three-state area, partners will coordinate with water quality trading programs currently under development in the Ohio River Valley, California, and Colorado in an effort to develop consistent, multi-state program elements that drive cooperation and shared infrastructure – including a shared credit registration system. Close multi-state coordination and use of common infrastructure will improve the likelihood that water quality trading programs will expand throughout the U.S. Consistency will also increase transparency and credibility of programs, minimize start up and transaction costs over time, and grow confidence in trading as an acceptable compliance alternative. The project will create a model for multi-state coordination, essential as agencies address water quality issues at major basin scales such as the Chesapeake, Mississippi, Columbia, Puget Sound and Colorado.

The Joint Regional Agreement will follow a three-tiered structure that establishes consistent agency authorities and processes in Tiers One and Two, but allows individual state flexibility for the specific mechanics of trading in Tier Three:

- **Tier One: Multi-State Agency Guidance**: Legal authorities, guiding principles, minimum program requirements, and appropriateness of trades in TMDL and "pre-TMDL" scenarios based on USEPA's 2003 Water Quality Trading Policy, but updated based on lessons learned and new information garnered from current trading activity.
- Tier Two: Standard Operating Procedures: Common processes and mechanics shared
 across trading programs including standard crediting procedures and common
 infrastructure, as well as standard language, process steps, and considerations to be
 included in TMDLs and NPDES permits to support trading. Standard operating
 procedures will also explore considerations for baseline and other eligibility
 requirements, project quality guidelines, credit verification, monitoring and
 registration/reporting.
- **Tier Three: State Specific Addenda**: Elements of trading that are unique to the ecological, economic, and socio-political needs of each state. State-specific appendices will include unique baseline procedures, credit calculation methodologies, discounting and ratio factors, minimum quality standards for allowable conservation practices, etc.

Challenges with water quality trading in the Chesapeake Bay and with the Climate Registry for carbon illustrate the need for regulatory processes that are state-centric, but regionally coordinated. Done correctly, a Joint Regional Agreement among the three Pacific Northwest states and USEPA could quickly spur adoption of similar agreements in other regions and states — a desired outcome of this project.

TIER ONE - Regional Guidance and Agency Authorities

- Legal basis and guiding principles for trading. USEPA's 2003 Water Quality Trading Policy was completed before many of the active point-nonpoint source trading programs were created. Additionally, guidance documents in Oregon, Washington and Idaho need updating based on recent permits and trading activity. Tier One Regional Guidance should be the same across all states.
- Frame conditions and general considerations to encourage water quality improvements in "pre-TMDL" areas. Most of the 14 trading programs in place now around the United States are based on compliance with TMDL allocations. More specific guidance is needed for the development of trading mechanisms in pre-TMDL watersheds, to comply with water quality-based effluent limits in NPDES permits or to keep water bodies from becoming impaired. Project partners will establish a process for defining baseline conditions and providing certainty to permittees (credit purchasers) and producers (credit sellers), including assurances that credits will be acknowledged when TMDLs or other regulatory documents are developed.
- ➤ Outline minimum requirements for a water quality trading program. A minimum set of conditions are needed for states to design and implement successful water quality trading programs. Project partners will develop a common set of basic requirements and a checklist to guide state agencies in the development and approval of trading proposals.

This element will help ensure programs are consistent with federal laws, are transparent and credible, and will accomplish the promised water quality improvements.

TIER TWO – Standard Operating Procedures for Trading

- ➤ **Develop standard crediting procedures and common infrastructure.** Many benefits provided by Joint Regional Guidance will stem from the certainty and ease-of-use inherent in a standardized set procedures and common definitions for water quality trading. The Willamette Partnership has developed templates for many of these procedures and they are being applied in watersheds across the Pacific Northwest. Standardization will also make agency evaluation and oversight of trading programs easier.
- ➤ Create standard language, process steps, and considerations to be included in TMDLs and NPDES permits to support trading. Experience in the Pacific Northwest illustrates that clear authorization for trading in TMDL documents and standard NPDES permit language creates a stronger legal footing for trading and improves implementation. Standard Operating Procedures will provide clear language and steps for TMDL developers and permit writers to consider when establishing TMDLs or approving trading programs. Current USEPA guidance for permit writers does not provide the level of specificity needed for clear, consistent regulatory agency operations throughout the region. Standard Operating Procedures will apply region-wide (Idaho, Oregon and Washington) with acceptance and formal agreement by the three states and USEPA.

TIER THREE - State-Specific Addenda

Water quality trading programs are shaped by the ecological, economic, and socio-political needs of their given state or watershed, which makes complete standardization difficult. Each state will need to define some elements of trading that are unique. The Joint Regional Agreement will provide for State-Specific Addenda to accommodate these changes, which will also make it easier for other states and regions to adopt the Agreement, or use it as a model for a separate regional agreement.

- Define modifications to the Standard Operating Procedure needed for each state. Idaho, Oregon and Washington will analyze their individual programs and statutory requirements and define protocols that address the specifics of water quality trading for each state.
- Define credit calculation methodologies and minimum quality standards for conservation practices. Quantifying water quality improvements is trending toward increased standardization. To the extent possible, states will try to adapt the same tools to quantify nutrient and temperature reductions, but individual states may need to determine their own crediting procedures for issues such as establishing baseline conditions.

Discussion of Innovation. State agencies and USEPA Region 10 are facing requests from multiple parties and permittees seeking guidance on water quality trading. Similar requests are occurring in USEPA Regions 8 and 9. Without clear and consistent guidance, programs will operate in isolation with different rules and with reduced overall transparency, increasing risk

and uncertainty for regulators and permittees, and minimizing opportunities to implement programs at a watershed scale.

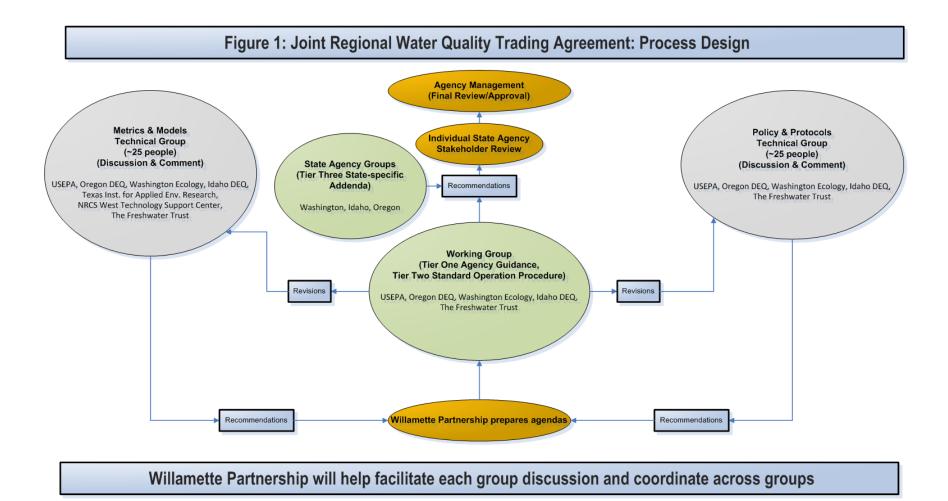
Clear, multi-state agency guidance is essential for water quality trading programs to operate, but only 8 states have any current guidance at all. The agencies implementing the Clean Water Act also wrestle with a tension between a desire for nationally consistent standards and the reality that watersheds need to be managed locally. This project provides the common state agency guidance, standard operating procedures, and framework to customize trading elements to each state. The deliverables from this project will enable states to quickly adopt or adapt shared trading program elements, enabling state water quality agencies and stakeholders to focus on the challenges unique to their locale and expediting the ability of producers to participate in trading programs.

3. Project methods

The Willamette Partnership will build from its 2008/09 *Counting on the Environment* process to help USEPA Region 10 and the three state water quality agencies develop a Joint Regional Agreement. That process successfully achieved multi-stakeholder agreements on science, policy, and crediting protocols, across water and biodiversity markets. The Partnership will work with the agencies to conduct the needed stakeholder processes with producers, utilities, environmental groups, and others to complete multi-state agency guidance (See Figure 1). Throughout the project, project partners will actively participate in national conversations on the state agency guidance and common tools needed to support water quality trading. The methodology for each element of the project is described below:

Task 1. Review 8 existing state water quality trading policies and convene agencies
The Willamette Partnership will review the 8 existing state trading policies (ID, WA, OR, WI, CO, MI, OH, MN) and USEPA guidance to identify common elements, inconsistencies, and gaps. The review will form the basis of a two-day kick-off workshop with USEPA Region 10 and the three state agencies to begin sorting trading program elements into Tier One Multi-State Agency Guidance, Tier Two Standard Operating Procedure, and Tier Three State-Specific Addenda.

The workshop will include presentations from each of the agencies on current regulatory authorities and operating procedures and gaps in existing tools. The agencies will form subgroups focusing on topics needing further development such as credit quantification, baselines, and developing legal authorities.



Task 2. Draft Tier One Multi-State Agency Guidance

Based on the action items from the kick-off workshop, each state agency will develop a list of additional state agency guidance and authorities needed to support trading and a set of comments on each state's existing guidance. The list and comments will be used to create an outline of the Tier One Multi-State Agency Guidance with a series of options for standardizing that guidance. The Willamette Partnership will convene staff leads from each agency through a series of work sessions to develop a complete draft of the Multi-State Agency Guidance.

The State Guidance will include minimum requirements for a trading program, such as compliance with anti-degradation and anti-backsliding provisions and general programmatic elements that every trading program will need to address (i.e. trading areas, baselines, trading ratios for things like delivery, risk, and environmental benefit, assurances, verification, monitoring, credit registration, credit custody tracking, remediation strategies etc).

Task 3. Draft Tier Two Standard Operating Procedures

Each state agency will assign a staff lead who will coordinate participation from their agency in two subgroups needed to develop Standard Operating Procedures for policies/permitting processes and technical/modeling. Those subgroups will complete the following subtasks.

Policy/Permitting

- Generate a comprehensive list of acceptable trading scenarios (for example, intraplant trading, intramunicipal trading, single buyer, multi-party closed market, etc.) based on pollutant(s) to be traded, size and hydrodynamics of the trading area, number and type of sources involved, pre-existing regulatory framework, stakeholder preferences, etc.
- Review federal and state guidance documents and available case law to create a checklist of minimum requirements for consideration.
- Determine priority conservation practices that give certainty of "high-quality" and effective restoration for use in compliance-grade offset credits.
- Develop detailed criteria for viable trading program proposals, including designated trading partners, a description of how proposed trades can be quantified for both point and non-point sources, and mechanisms/protocols for establishing reasonable assurances that proposed actions identified in the trading will be implemented and water quality improvements realized.
- Analyze and compile essential, well-defined permit conditions, including acceptable trades, minimum requirements for trading agreements, recordkeeping, monitoring, third party verification, serialized registration, and reporting requirements.
- o Identify and develop guidance for the **required elements of permit evaluation** reports.
- Review and develop a standard method for assessing compliance with and enforcement of trading proposals in permits. Review Idaho, Oregon and Washington's existing enforcement regulations to determine if additional compliance and enforcement tools need to be developed to specifically address trading.

Technical/Modeling

- Determine how to establish nonpoint source "baselines", including specific guidance in areas that do not yet have established TMDLs or will be completing a TMDL in the future.
- o Define the **unit of trade**, or "credit," that represents the amount of pollutant reduced over a specified **time period** by a particular action, and establish how these credits can be used.
- Agree to credit calculation tools/metrics, including adaptation across the states. If states
 wish to use specific quantification tools, those will be included in State-Specific Addenda.
- As part of this project, Nutrient Tracking Tool (NTT) will be considered as one credit calculation tool, and will be uploaded with crop management, soils, and climate data for Washington and Idaho by the Texas Institute for Applied Environmental Research and in

- coordination with NRCS' West Technology Center. Agencies will work with local partners to identify sites to calibrate the outputs for NTT.
- Develop trading ratios which account for factors like *delivery* of pollutants into a stream, equivalency across different forms of pollutants, uncertainty tied to measurement and other forms of risk, and retirement for environmental benefits.
- Review current methods and develop new methods and procedures if needed that ensure compliance with NPDES permit requirements, including testing protocols and monitoring.
 Determine if additional methods should be developed specific to trading compliance.

Task 4. Draft Tier Three State-Specific Addenda

As agency staff and stakeholders identify issues specific to each state, they will be incorporated into State-Specific Addenda. These Addenda will help maintain consistency with standard operating procedures but will also maximize state flexibility to manage and control their respective programs. The bulk of the state-specific addenda are likely to include the following:

- Develop minimum design criteria for installing high quality conservation practices. These criteria will vary depending on actions, but will contain the specific project detail and standards needed to use those practices to generate credits.
- Identify criteria for "trading areas" and priorities within these areas.
- Identify criteria for third party entities in each state to perform credit verification. Third
 party verification of credits is critical to ensure that offsets used in compliance-based
 trading meet the highest ecological and regulatory standards.
- o Review and select a **legitimate credit registry** to record and track trades in each state.
- Clearly define state policies on total project loss, remediation, and force majeure.

Task 5. Local, regional and national stakeholder engagement

Stakeholder engagement is critical for this project's success. Farm, ranch and forest interests, environmental groups, local governments, and utilities must support the three state agencies and USEPA in their effort to develop a Joint Regional Agreement. Managing communication and engagement among these many disparate constituents promises to be a massive effort, with primary responsibility falling on The Freshwater Trust (a project partner) during the project period. The Trust will convene these stakeholders as required to maintain alignment on project outcomes. The Trust's engagement here will also result in early supply and demand analysis for water quality trading across the three states, and set the stage for active trading activity immediately upon execution of the Joint Regional Agreement.

The intent of the Joint Regional Agreement is to kick-start a viable regional water quality trading marketplace, and provide a model other states and regions may adopt. Project partners will work with neighboring USEPA regions and states that have already expressed interest in basing their trading programs on tools developed in the Pacific Northwest. In addition to neighboring states and regions, project partners are already coordinating with trading programs being developed in the Ohio River Valley to maximize consistency and the use of common infrastructure where possible. In addition, USEPA Region 10 will share key developments and draft products with USEPA's Office of Water to support a consistent regional approach to implementing water quality trading.

Project partners strongly encourage and will actively participate in a "Water Quality Market Network" established by USDA with other CIG grantees, state agencies, and USEPA as a venue to share experience, coordinate program development, evaluate program components and results, and establish consistent tracking, reporting and verification parameters.

Task 6. Finalize Joint Regional Agreement and Reporting to NRCS

As a draft Joint Regional Agreement is completed, state water quality agencies, with support from USEPA Region 10, will make decisions together about the public processes needed to formalize the Agreement as multi-state agency guidance. This process may include one to two rounds of public comment and response. It may include outreach to stakeholders like wastewater utilities, environmental groups, producer groups, and tribes.

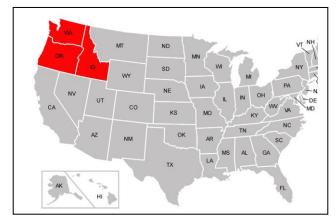
The Willamette Partnership will use its *Counting on the Environment* process to facilitate an agreement. That process includes in-depth convening to ensure the right individuals and organizations have a voice in the Joint Regional Agreement, structured communication throughout so that nothing in the Agreement is a surprise, and structuring of an agreement document that provides both flexibility and consistency. The Joint Regional Agreement may take several forms (e.g. formal agency guidance or a Memorandum of Agreement between agencies). The final form will be determined by state agencies and USEPA.

4. Location and size of project or project area:

This project will span Oregon, Washington and Idaho. This project will provide a blueprint for other states seeking to standardize regional water quality trading guidance.

5. Producer participation:

At least 4 EQIP-eligible producers will be directly involved in commenting on and shaping the state-specific appendices – a significant commitment. More significantly, this



project will establish the regional framework needed for water quality trading programs to scale across the Pacific Northwest, with enormous benefits for EQIP-eligible producers. In Oregon alone, over \$20,000,000 has already been invested in restoration projects that generate water quality offsets, and another \$13,000,000 in credit transactions are planned over the next few years. Over 200 landowners, many of whom are EQIP-eligible, have or will soon participate in water quality trading programs by allowing conservation actions on their land, with attractive incentive payments in exchange. For this project, no CIG funds will be used to implement projects to generate credits or to provide payments to landowners. But a Joint Regional Agreement on Water Quality Trading offers significant long-term benefits for EQIP-eligible producers, as a new revenue stream that encourages conservation practices on farms, forests and ranches.

6. Project action plan and timeline

DESCRIPTION	Start	End	MILESTONES		
Task 1. Review 8 trading policies & Convene Stakeholders					
Review of 8 state trading policies and USEPA policy	9/12	3/13	Convening Report		
Final process design and agendas					
Task 2. Draft Tier One Multi-State Agency Guidance					
Develop review criteria for trading proposals	4/13 11/13		Draft Guidance Document		
Establish shared authorities and objectives	., 15	11, 10			
Define general trading provisions					
Task 3. Draft Tier Two Standard Operating Procedure			Draft Standard Operating Procedures		
Create shared policies (e.g. on trading ratios)	··	6/14	Protocol documents		
Update/validate nutrient &shade calculators for regional use	6/13		Nutrient and shade calculators for OR, WA, ID		
Build permitting templates			Standard permit language		
Define roles and governance			Draft roles and responsibilities		
Task 4. Draft Tier Three State-specific Addenda	10/10	40/44			
Draft addenda for each state	12/13 12/14		3 Draft Addenda for OR, WA, ID		
Task 5. Stakeholder Engagement			Local stakeholder convening, participation in		
Coordinate with local stakeholders, other CIG grantees, USDA,	9/12	9/14	national calls, comments incorporated from		
USEPA, and cooperating states			other states		
Task 6. Finalize Joint Regional Agreement & Report to NRCS			Joint Regional Agreement endorsed by WA,		
			OR, and ID state agencies		
Secure final Joint Regional Agreement	12/14	9/15	Handbook for other states on steps needed		
Develop bandhook so other states can "sign on" to Assessed	-	•	to join the Agreement		
Develop handbook so other states can "sign on" to Agreement Complete Final Report to NRCS			Final Report to NRCS		
כטוווףובנב ו ווומו הבייטור נט ואהכי					

7. Project management

The project overall will use the *Counting on the Environment* process to coordinate science and policy work across state lines and stakeholder interests. A working group of state water quality agency leads, USEPA Region 10, and The Freshwater Trust will review and discuss the recommendations made from technical groups focusing on the science and measurement of water quality improvements and the policy and protocol issues needed to support trading. The Willamette Partnership will actively facilitate these groups through a series of in-person and telephone meetings over the course of the project period.

State water quality agencies, USEPA Region 10, and The Freshwater Trust staff will play central roles in delivering this project. Key personnel expected to participate include:

<u>Bobby Cochran, Executive Director, Willamette Partnership</u>, will be responsible for the overall project and lead facilitator for the project. Bobby has led complex inter-agency processes around water quality trading and other environmental markets since 2007. Those processes have led to agency rule changes, shifts in standard operating procedures, and other forms of coordinated action. Bobby has nearly 10 years of experience negotiating collaborative policy at the intersection of science, policy, and economics. He has a PhD from Portland State specializing in public policy and negotiation, and an MA in Conflict Resolution.

Ranei Nomura, Water Quality Trading Project Manager, Oregon Dept. of Environmental Quality. Ranei has 20 years of experience at OR DEQ in water quality permit policy, program, and rule development. For the past five years, as the agency's alternative compliance policy analyst, Ranei has been responsible for developing state water quality trading guidance and reviewing and approving trading program proposals. Ranei also participated in the Willamette Partnership's *Counting on the Environment* process and is part of the Klamath Tracking and Accounting Program interagency workgroup. She has a BA in Biology from Reed College in Portland, Oregon.

Michael McIntyre, Surface Water Program Manager, Idaho Dept. of Environmental Quality. Michael manages the Surface Water Programs for the State of Idaho Department of Environmental Quality. His staff develops policy direction for monitoring waterbodies, assessing waterbodies, developing TMDLs, and TMDL implementation plans. Michael's program has recently updated the Idaho Water Quality Pollutant Trading Guidance.

Helen Bresler, Water Quality Program, Washington Dept. of Ecology. Helen manages the Nonpoint and TMDL Programs for the Washington Department of Ecology. Her staff develops policy direction for both programs and oversees the work to ensure it meets the requirements of the Clean Water Act and state water quality standards. Helen is the author of Washington's Water Quality Trading/Offset Framework.

<u>Claire Schary, Water Quality Trading Coordinator, USEPA 10</u>. With 22 years of experience at USEPA, Claire's time in the Acid Rain Division helped establish the nation's first cap and trade program for sulfur dioxide emissions. She has been Region 10's Water Quality Trading

Coordinator for the last 15 years and is considered a national expert on water quality trading. She led USEPA's team developing Idaho's Lower Boise River Water Quality Trading Framework and USEPA's Water Quality Trading Assessment Handbook. She also represented Region 10 in the national workgroup that created USEPA's Water Quality Trading Policy and the Water Quality Trading Toolkit for Permit Writers. She has a BA in Economics from Carleton College in Northfield, MN and an MBA from Cornell University in Ithaca, NY.

David Primozich, Senior Director of Ecosystem Services, The Freshwater Trust. Mr. Primozich has more than a decade of experience engaging stakeholders to deliver informed decisions about the management and use of natural resources. Prior to joining The Trust, he helped form and served as Executive Director of the Willamette Partnership, where he led efforts to shape emerging quantification science and infrastructure around ecosystem service payment systems to achieve more effective conservation results. At The Trust, David has lead efforts to help NPDES permit holders apply rigorous new quality standards to temperature trading programs. In December 2011, David helped the City of Medford secure a wastewater permit that included a trading program that will yield roughly 30 miles of restored streamside shade, implemented entirely by a third party – a major milestone in the development of environmental markets. David has earned undergraduate degrees in Applied Science Agriculture and Anthropology and a master's degree in Applied Anthropology.

8. Project deliverables/products

The Willamette Partnership and project partners will supply the required documents outlined in the RFP (e.g. semi-annual reports, justification of payment, etc.) and will participate in at least one NRCS sponsored event during the grant period. In addition to the required deliverables outlined in the RFP, the project will provide the following deliverables/products:

Task 1. Review 8 trading policies & Convene Stakeholders 1 Summary report of gaps in existing 8 state trading policies and USEPA policy 2 Convening report with process design, group membership, and process issues Task 2. Draft Tier One Multi-State Agency Guidance 1 Kick-off workshop agenda and action items 2 Working group agendas and action items 3 Draft Guidance Document Task 3. Draft Tier Two Standard Operating Procedure 1 Shade calculator updated and validated for OR, WA, ID 2 Nutrient calculator updated and validated for OR, WA, ID 3 Draft Standard Operating Procedure document with protocols, permit language, and roles and responsibilities Task 4. Draft Tier Three State-specific Addenda						
2 Convening report with process design, group membership, and process issues **Task 2. Draft Tier One Multi-State Agency Guidance** 1 Kick-off workshop agenda and action items 2 Working group agendas and action items 3 Draft Guidance Document **Task 3. Draft Tier Two Standard Operating Procedure** 1 Shade calculator updated and validated for OR, WA, ID 2 Nutrient calculator updated and validated for OR, WA, ID 3 Draft Standard Operating Procedure document with protocols, permit language, and roles and responsibilities						
Task 2. Draft Tier One Multi-State Agency Guidance 1 Kick-off workshop agenda and action items 2 Working group agendas and action items 3 Draft Guidance Document Task 3. Draft Tier Two Standard Operating Procedure 1 Shade calculator updated and validated for OR, WA, ID 2 Nutrient calculator updated and validated for OR, WA, ID 3 Draft Standard Operating Procedure document with protocols, permit language, and roles and responsibilities						
1 Kick-off workshop agenda and action items 2 Working group agendas and action items 3 Draft Guidance Document **Task 3. Draft Tier Two Standard Operating Procedure** 1 Shade calculator updated and validated for OR, WA, ID 2 Nutrient calculator updated and validated for OR, WA, ID 3 Draft Standard Operating Procedure document with protocols, permit language, and roles and responsibilities						
2 Working group agendas and action items 3 Draft Guidance Document Task 3. Draft Tier Two Standard Operating Procedure 1 Shade calculator updated and validated for OR, WA, ID 2 Nutrient calculator updated and validated for OR, WA, ID Draft Standard Operating Procedure document with protocols, permit language, and roles and responsibilities						
3 Draft Guidance Document Task 3. Draft Tier Two Standard Operating Procedure 1 Shade calculator updated and validated for OR, WA, ID 2 Nutrient calculator updated and validated for OR, WA, ID Draft Standard Operating Procedure document with protocols, permit language, and roles and responsibilities						
Task 3. Draft Tier Two Standard Operating Procedure 1 Shade calculator updated and validated for OR, WA, ID 2 Nutrient calculator updated and validated for OR, WA, ID Draft Standard Operating Procedure document with protocols, permit language, and roles and responsibilities						
1 Shade calculator updated and validated for OR, WA, ID 2 Nutrient calculator updated and validated for OR, WA, ID 3 Draft Standard Operating Procedure document with protocols, permit language, and roles and responsibilities						
2 Nutrient calculator updated and validated for OR, WA, ID 3 Draft Standard Operating Procedure document with protocols, permit language, and roles and responsibilities						
3 Draft Standard Operating Procedure document with protocols, permit language, and roles and responsibilities						
roles and responsibilities						
roles and responsibilities						
Task 4. Draft Tier Three State-specific Addenda						
Task 4. Draft Tier Three State-specific Addenda						
1 OR Draft Addenda						
2 ID Draft Addenda						
3 WA Draft Addenda						
Task 5. Stakeholder Engagement						
1 Engage local stakeholders/alignment on project outcome (Joint Regional Agreement)						
2 Comments received from USDA, USEPA, and other states via national calls						
3 Versions of Tier One and Tier Two documents that are applicable to other states						
Task 6. Finalize Joint Regional Agreement & Report to NRCS						
Final versions of Multi-State Agency Guidance, Standard Operating Procedures, and State-specific addenda						
2 Joint Regional Agreement supported by USEPA and state water quality agencies						
3 Handbook for other states on steps needed to join the Agreement						
4 Final Report to NRCS						

9. Benefits or results expected and transferability

In general, project partners are interested in a single outcome from this work - more effective ways to maximize total pollution-reduction/water quality improvements achieved from dollars spent. The work completed under this proposal will set the stage to accelerate restoration activities on farm, ranch and forest land far beyond what would be possible otherwise.

This project centers on the Pacific Northwest, but partners will participate with other CIG grantees to ensure the Joint Regional Agreement can be adopted by other states and regions. Particular focus will be placed on reaching out to other western states in USEPA Regions 6, 8, and 9. Already, work is beginning with California's North Coast Regional Water Quality Control Board in the Klamath River Basin to integrate water quality markets with the Klamath Tracking

and Accounting Program. Under The Freshwater Trust's current CIG, there is funding to convene a national network of regional market developers. Project partners will use the network to transfer the results of this grant and receive information about the innovations of other CIG grants. In turn, that network offers NRCS and others the capacity to more easily transfer market innovations to watersheds and communities.

The benefits of credible and transparent trading programs in general are clear for four stakeholders categories: 1) regulators gain new tools to incentivize restoration actions that improve water quality, and a standard method to quantify and verify outcomes from dollars spent and actions taken; 2) farmers, foresters, and ranchers with degraded riparian land gain access to new funding sources that enable them to take action more quickly and with higher quality standards; 3) regulated point sources get access to a compliance solution that is generally (often substantially) less expensive than technological solutions, and offers numerous secondary benefits (miles of stream banks restored and business for local contractors and suppliers); 4) the public is assured that steps are being taken to improve water quality conditions and that actions taken to offset ongoing impact are real, verified, tracked, and performing to a high quality standard over time.

10. Project evaluation:

The Willamette Partnership will submit semi-annual progress reports and quarterly financial reports to NRCS. Prior to program launch, state agencies, with support from the Willamette Partnership and The Freshwater Trust, will fully evaluate the legal, technical, and policy feasibility of joint action on various portions of the Joint Regional Agreement. The Partnership will keep records of action items and meeting summaries to ensure there is a record of discussion to help other states and regions consider adopting or adapting the Joint Regional Agreement.

Mid-way through the project, the state agencies and Willamette Partnership will assess current process design, status of deliverables, and progress toward objectives to see if any changes are needed.

Technical feasibility of transfer for the Joint Regional Agreement will be assessed based on the time taken to develop and reach agreement on the different shared agency policies and tools. This measure translates directly into cost estimates needed for other states.

D. Additional Information

1. References

- Idaho Department of Environmental Quality. Water Quality Pollutant Trading Website. http://www.deq.idaho.gov/water-quality/surface-water/pollutant-trading.aspx.
- Kling, C., & Secchi, S. (2011). *Natural Resources Credit Trading Reference*. United States Department of Agriculture Natural Resources Conservation Service. Retrieved from http://www.nrcs.usda.gov/Internet/FSE DOCUMENTS/stelprdb1045650.pdf.
- Oregon Department of Environmental Quality. Water Quality Trading Website. http://www.deq.state.or.us/wq/trading/trading.htm
- Selman, M., Greenhalgh, S., Branosky, E., Jones C., & Guiling J. (2009). *Water Quality Trading Programs: An International Overview*. WRI Issue Brief, Water Quality Trading, No 1. World Resources Institute, Washington, DC.
- United States Environmental Protection Agency. (2003). *Final Water Quality Trading Policy*. Retrieved from http://water.epa.gov/type/watersheds/trading/finalpolicy2003.cfm.
- United States Environmental Protection Agency. (2004). Water Quality Trading Assessment Handbook: Can Water Quality Trading Advance Your Watershed's Goal? Washington, DC: National Service Center for Environmental Publications. EPA 841-B-04-001. Retrieved from http://www.epa.gov/owow/watershed/trading/handbook/docs/national-wqt-handbook-2004.pdf.
- United Stated Environmental Protection Agency. (2007). Water Quality Trading Toolkit for Permit Writers. Washington, DC: National Service Center for Environmental Publications. EPA 833-R-07-004. Retrieved from http://water.epa.gov/type/watersheds/trading/upload/2004-11-08-watershed-trading-handbook-2004.pdf.
- Washington Department of Ecology. (2010). *Draft* Washington *Water Quality Trading/ Offset Framework*. WDEQ 10-10-064. Olympia, WA. Retrieved from http://www.ecy.wa.gov/programs/wq/swqs/WQTradingGuidance 1010064.pdf.
- Willamette Partnership. (2009). Ecosystem Credit Accounting: Pilot General Crediting Protocol: Willamette Basin v. 1.1. Hillsboro, OR. Retrieved from http://willamettepartnership.org/General%20Crediting%20Protocol%201.1.pdf.
- Willamette Partnership. (2009). *Joint Statement of Agreement for an Ecosystem Credit Accounting System*. Hillsboro, OR. Retrieved from http://willamettepartnership.org/ongoing-

 $\frac{projects\text{-}and\text{-}activities/nrcs\text{-}conservation\text{-}innovations\text{-}grant\text{-}}{1/Joint\%20Agreement\%20all\%20signatures.pdf}$

2. Resume: Bobby Cochran

E. Assessment of Environmental and Social Impacts.

There will be no direct adverse impacts from this project.

1. Positive Impacts include:

Cultural resources. By unlocking revenue for producers to engage in conservation on their working lands, this project helps maintain the working lands that support rural communities across the Northwest while balancing environmental needs.

Wild and Scenic River. Over half of the nation's Wild and Scenic rivers flow through the Northwest. Oregon has 47 designated wild and scenic rivers including the Sprague, Sycan, and Klamath River where the Willamette Partnership is already advising the Klamath Tracking and Accounting Program on market design. The Snake River in Idaho and Klickitat River in Washington are other Wild and Scenic rivers where the Willamette Partnership and TFT have already actively engaged in market feasibility analysis.

Public health and human environment. This initiative targets water quality restoration that will benefit drinking water, flood protection, safer fishing, and recreation—all key to the Northwest quality of life and tourism economy.

Retention of sustainably managed working lands. Maintaining working lands by providing market-based incentives for ecosystem services means these lands will continue to provide the positive impacts referenced in this section into the future. Riparian buffers often affect marginal farmland and contracted annual payments with producers will diversify farm income.

Environmental justice. There will be no direct adverse impacts, but many positive direct and indirect impacts for low-income land owners and rate-payers from better conservation investment. Direct impacts will include payments to land owners, reduced utility rate increases, and employment through living-wage restoration jobs when municipal funds for achieving water quality standards are invested in locally built natural infrastructure rather than imported technology.

Atmosphere. Riparian forests reduce nitrogen dioxide formation and sequester carbon. **Soils.** Riparian planting ensures that existing farming operations have minimal impact on soil erosion and do not compromise the stability of river banks and stream-beds. **Water.** This initiative will enable new strategies and funds to address non-point source temperature and nutrient water quality impairments identified in TMDLs throughout the Northwest.

Wildlife Habitat/Endangered and Threatened Species. Incentives for restoration of riparian areas and other habitats created by this initiative will improve habitat conditions for a full suite of fish and migratory birds. Essential Fish Habitat for endangered Coho and Chinook salmon

includes all streams, lakes, ponds, wetlands, and other water bodies currently or historically accessible to salmon in Washington, Oregon and Idaho. The actions taken under this proposal will have positive benefits for the habitat these species depend on. A majority of on-the ground restoration projects undertaken as part of this proposal will occur on lands adjacent to these waters.

Invasive Species. Riparian planting resulting from trading programs will use only native plants, locally sourced where possible, and projects will be required to be rigorously monitored and maintained to control invasive until native vegetation is established. No adverse invasive specifies effects are expected, and this project could lead to better control of invasives through water quality credit generation.

F. Budget Information

2. Detailed Budget

Personnel			_	TOTAL	_	FED	_	NON-FED
Executive Director (Willame	tte Partnership) (1) staff at rate:	¢ 55.00	Φ.	104 045	\$	104 045	\$	
Executive Director (willame	Estimated hours in 36 months:	-	-	124,245	Ф	124,245	Ф	-
Specialist	(1) staff at rate:		_	117,000	\$	117,000	\$	
- Period	Estimated hours in 36 months:	-	-	,	_	,	Ť	
Finance & Administration	(2) staff at rate		\$	28,704	\$	28,704	\$	-
	Estimated hours in 36 months:	1248	3					
Total Personnel			\$	269,949	\$	269,949	\$	-
- · · · · · · · · · · · · · · · · · · ·								
Fringe Benefits			^	20.005	•	20.005	•	
Total Fringe Benefits (Calcul	ated at an average rate of 30.0%)		\$	80,985	\$	80,985	\$	-
Travel								
	vithin the Northwest at \$200/ticket; a	nd 8 tickate to						
DC at \$577/ticket)	vitilit tile Nottilwest at \$200/ticket, at	iid o lickets to	\$	10,216	Φ.	5,108	\$	5,108
. ,	d 4 trips per week for project manage	m ont and	Ψ	10,210	Ψ	3,100	Ψ	3,100
	es per week for 36 months at the fed							
effect at the time of travel (cur	•	ciai iate iii	\$	69,264	\$	34,632	\$	34,632
		dea la ana N						
	at \$150/night for regional agency wor	ksnops)	\$	15,000		7,500	\$	7,500
NRCS Designated Travel	. 600 miles, 93,600 total over 36 mo	s at \$0 E0/mila	\$	3,000 97,480	\$	3,000 50,240	\$ \$	47,240
Total Travel (5 trips/wk, avg.	100 miles, 93,000 total over 36 mo	s at \$0.50/IIIIle) -	97,460	ų.	30,240	Ψ	47,240
Equipment	N/A							
Total Equipment	IN/A	-	\$	_	\$		\$	
Total Equipment			Ψ		Ψ	<u>-</u>	Ψ	<u>-</u>
Supplies								
	pport, postage, printing (est'd at 5%	of Porconnol)	\$	13,497	\$	13,497	\$	
Total Supplies (paper, pens,		or reisonnei)	\$	13,497	\$	13,497	\$	
	eted by project partners as consultar cipation for Project Deliverables fro es		acts, i	MOAs, etc.)				
1) Oregon DEQ, Washin			\$	750,000	\$	750,000	\$	-
2) Facilitation			\$	100,000	\$	100,000	\$	-
B. Nutrient Tracking Tool ada								
	olied Environmental Research		\$	75,000	\$	75,000	\$	-
	& neighboring western states							
1) World Resources Inst	tute		\$	100,000	\$	100,000	\$	-
2) The Freshwater Trust	ment; supply & demand analysis		\$	990,000			\$	990,000
5 5	stakeholders (farm, ranching and for	restry)	\$	385,000	\$	45,000	\$	340,000
2) Supply & demand and	·	CSLY)	\$	275,000	\$	45,000	\$	230,000
Total Contractual			\$	2,675,000		1,115,000	_	1,560,000
Construction	N/A							
			\$	-	\$	-	\$	•
<u>Other</u>								
	sumes light breakfast (\$7/person), tv r (\$20/person) for 7, 2-day agency wo and Portland)		\$	6,090	\$	6,090	\$	_
	, occupancy (estimated at 20% of Pe	ersonnel)	\$	53,990		53,990	\$	-
	shments, telephone, equipment rei		_	60,080	\$	60,080	\$	-
Total Direct Costs								
Total Direct Costs			\$	3,196,991	\$	1,589,751	\$	1,607,240
Total Indias - (O ()	1,1/2				_			
Total Indirect Costs	N/A		\$	-	\$	-	\$	-

3a. BUDGET NARRATIVE – YEAR ONE: \$1,078,164 (Federal Share \$542,417) Personnel (\$89,983):

- Executive Director (Willamette Partnership staff): Throughout the project, oversight of all project elements, including completion of all deliverables, lead facilitator, reporting and documentation of success.
- Specialist (Willamette Partnership staff): Throughout the project, responsible for conducting research and developing options in response to state agency requests and facilitating all technical discussions.
- Finance and Administration (Willamette Partnership staff): Ongoing responsibility for expense tracking, invoicing, and contract compliance.

Fringe Benefits (\$26,995): Calculate at an average rate of 30%, which includes medical, dental, worker's compensation, LTD, social security, Medicare and retirement contributions.

Travel (\$32,493): Airfare estimated at 28 tickets for regional flights within the Northwest for project partners to attend 7 2-day workshops rotating between Seattle, Boise, and Portland. Cost of each ticket is \$200. The project also includes 8 tickets from Portland to Washington, DC for project partners to participate in national discussions on trading guidance. Cost of each ticket is \$577. Total airfare is \$3,405 in Year 1. The project will also provide 50 nights of hotel stays for project partners participating in those 7-day workshops at \$150/night for a total of \$5,000 in Year 1. Mileage and Parking estimated at three trips per week for project staff (management and facilitation) at a total of 400 miles per week traveled over 36 months, paid at the federal rate in effect at the time of travel (currently \$0.555 per mile). Total Mileage and Parking in Year 1 is \$23,088. NRCS designated travel for participation in required CIG collaboration is also included at \$1,000 for Year 1.

Equipment: N/A

Supplies (\$4,499): The Willamette Partnership holds a Support Services agreement with Clean Water Services who provides general office supplies, computer support, postage, and in-house printing and copying on a fixed rate of 5% of base salary per employee.

Contractual (\$904,167):

- State Water Quality Agencies (\$283,333)
 - A. *Oregon Dept. of Environmental Quality:* Oregon DEQ will assign at least 0.5 FTE of staff time dedicated to delivering the outcomes of this project. Staff will include Ranei Nomura, DEQ's Trading Project Manager and technical staff from DEQ's TMDL program.
 - B. *Idaho Dept. of Environmental Quality:* Idaho DEQ will assign at least 0.5 FTE of staff time dedicated to delivering the outcomes of this project. Staff will include

- Michael McIntyre, DEQ's Surface Water Program Manager and technical staff from DEQ's TMDL program.
- C. Washington Dept. of Ecology: Washington Ecology will assign at least 0.5 FTE of staff time dedicated to delivering the outcomes of this project. Staff will include Helen Bresler, Ecology's manager for Nonpoint and TMDL program and technical staff from Ecology's TMDL program.

D. Facilitation

Willamette Partnership will solicit quotes from professional facilitation teams to assist with the seven 2-day interagency workshops. The facilitation teams will have extensive experience working with the state water quality agencies and will be available to help them through some of the legal and policy challenges they encounter. It is estimated a facilitation team will cost between \$100-\$200/hour.

Nutrient Tracking Tool Adaptation to Washington and Idaho (\$37,500)

A. Texas Institute for Applied Environmental Research. Dr. Saleh and his team will upload the climate, soils, and crop management data files to allow Nutrient Tracking Tool to work for Washington and Idaho. Local stakeholders and the Willamette Partnership will conduct expert validation of NTT and Dr. Saleh's team will calibrate and adjust NTT based on that field testing. With the Willamette Partnership and Oregon DEQ, Dr. Saleh has already successfully adapted NTT for Oregon.

• Engagement with national and neighboring western states (\$363,333)

- A. World Resources Institute (\$33,333). Todd Gartner and the World Resources Institute's water quality team will work early to engage neighboring western states to assess the feasibility of water quality markets and support their involvement in shaping this project's deliverables. Specific activity will be targeted toward Colorado Department of Public Health and the North Coast Regional Water Quality Control Board in California. World Resources Institute will also support the project partners' engagement with national and other regional efforts to standardized water quality markets. Mr. Gartner will charge at \$96.40/hour.
- B. The Freshwater Trust (\$330,000). The Freshwater Trust staff, including Director of Ecosystem Services David Primozich, Ecosystem Services Manager Alex Johnson, Ecosystem Services Director (WA), Ecosystem Services Director (ID) as well as numerous GIS, monitoring, restoration, financial and legal staff will provide robust support for state and federal agencies, as well as World Resources Institute and Willamette Partnership staff, on all aspects of project work. The Freshwater Trust staff rates vary from \$25 to \$85 per hour.
- Local stakeholder engagement; supply & demand analysis (\$220,000)

- A. Stakeholder Coordinators. Within each state, there will need to be coordination of local stakeholder engagement with the development of the Joint Regional Agreement. Local stakeholders include producers, wastewater utilities, environmental organizations, and others. Stakeholder coordinators will be contracted in each state to gather feedback, respond to comments, and develop opportunities to pilot and implement the Joint Regional Agreement. These stakeholder coordinators will be in OR, WA, and ID but may also work in neighboring states like CO and CA. Stakeholder coordinators will charge between \$50 and \$100/hr.
- B. Supply & demand analysis. The Freshwater Trust will provide critical analysis of market supply and demand, to demonstrate the importance of the project, reinforce agency commitment to developing the multi-state guidance, and serve as a "road map" for early market activity following the project period.

Other (\$20,027): The Willamette Partnership holds a Support Services agreement with Clean Water Services who provides telephone, equipment rental, and occupancy on a fixed rate of 20% of base salary per employee (\$17,997). The Willamette Partnership will convene seven 2-day agency workshops for 10 people, which include lunch (\$15/person) and dinner (\$20/person) on Day 1 and light breakfast (\$7/person) and lunch (\$15/person) on Day 2 for each workshop. Total refreshments for the workshop in Year 1 will be (\$2,030).

3b. BUDGET NARRATIVE - YEARS TWO (\$1,078,164) and THREE (\$1,040,664)

The budget assumptions described in Year 1 apply to Years 2 and 3 as well. Personnel, Fringe, Travel, Supplies, Contractual, and Other Direct costs will all stay steady over the 3-year course of the project. Tasks will shift from Tier I State Agency Guidance to Tier II Standard Operating Procedures to Tier III State-specific addenda, but level of effort will remain constant. The only difference will be in roll-out of Nutrient Tracking Tool for WA and ID, which ends after Year 2.

3c. BUDGET NARRATIVE - THREE YEAR SUMMARY

Item	Federal Total	Year 1	Year 2	Year 3
1.Personnel	\$269,949	\$86,983	\$86,983	\$86,983
2.Fringe Benefit	\$80,985	\$26,995	\$26,995	\$26,995
3.Travel	\$50,240	\$16,746	\$16,747	\$16,747
a. Airfare	\$5,108	\$1,702	\$1,703	\$1,703
b. Mileage/Parking	\$34,632	\$11,544	\$11,544	\$11,544
c. Hotel	\$7,500	\$2,500	\$2,500	\$2,500
d. NRCS travel	\$3,000	\$1,000	\$1,000	\$1,000
4.Equipment	\$0	\$0	\$0	\$0
5.Supplies	\$13,497	\$4,499	\$4,499	\$4,499
6.Contractual	\$1,115,000	\$384,167	\$384,167	\$346,666
a. State agencies	\$850,000	\$283,333	\$283,333	\$283,334
b. Nutrient Toll	\$75,000	\$37,500	\$37,500	\$0

c. Engagement	\$100,000	\$33,333	\$33,333	\$33,334
d. Local engagement	\$90,000	\$30,000	\$30,000	\$30,000
7. Other Direct	\$60,080	\$20,026	\$20,027	\$20,027
a. Workshop	\$6,090	\$2,030	\$2,030	\$2,030
refreshments				
b. Other	\$53,990	\$17,996	\$17,997	\$17,997
TOTALS	\$1,589,751	\$542,417	\$542,417	\$504,917

G. Indirect Costs

Not applicable, no indirect costs are claimed in this application

H. Matching

CASH SUPPORT:

The Freshwater Trust (CASH, letter of commitment attached) is committing **\$858,000** of its general fundraising support (from board giving, membership, corporate giving, foundations, fundraising events, etc.) to this project.

IN-KIND MATCHING SUPPORT:

The Freshwater Trust (IN-KIND, letter of commitment attached) will provide \$749,240 in in-kind services for this project.

TOTAL MATCH SECURED (and supported with attached documentation): \$1,607,240

I. Declaration of Previous CIG Projects Involvement.

The Freshwater Trust: TFT was awarded funding from the 2011 National Conservation Innovation Grants program to complete the framework for water quality trades in Oregon and apply the framework on-the-ground in 2-3 Oregon watersheds. As of this writing, TFT has secured agreements with two regulated entities in Oregon (City of Medford and Metropolitan Wastewater Management Commission – Eugene/Springfield) to transact the first temperature credits in 2012. In addition, the U.S. Forest Service has committed to purchasing verified outcomes from projects implemented to the same rigorous quality standards as compliance grade credits. Projects purchased by the U.S.Forest Service will be tracked and monitored for conservation purposes (just like a credit) – setting an intriguing precedent for traditional conservation funders to become "conservation buyers". TFT expects to have commitments from two additional public entities (City of Ashland and Port of St. Helens) and a second conservation buyer (Oregon Watershed Enhancement Board) secured by mid 2012. These six agreements represent more than \$13,000,000 in credit transactions and will result in more than 60 miles of streams restored. This work has laid the foundation for the regional agreement described in this proposal, and will help to inform the process.

Willamette Partnership: The Willamette Partnership's *Counting on the Environment* process was funded in part through a grant from the national CIG program. The project created the infrastructure and regulatory agreements necessary to support markets for multiple ecosystem

services in the Willamette River basin. It was built in a way that with minor adaptations could be adapted to new geographies and new credit types. This project will integrate the *Counting on the Environment* outcomes with other ecosystem market tools, and packaged them in a way that speeds transfers to other geographies. The Willamette Partnership also received support from the Oregon state CIG program in 2009 for the development of a nutrient trading tool and to fund the verification of pilot projects implemented using the protocols.

J. Declaration of Beginning Farmer or Rancher, Limited Resource Farmer or Rancher, or Federally Recognized Indian Tribe

Not Applicable

K. Declaration of EQIP Eligibility

At least 4 EQIP-eligible producers will be directly involved in commenting on and shaping the state-specific appendices — a significant commitment. More significantly, this project will establish the regional framework needed for water quality trading programs to scale across the Pacific Northwest, with enormous benefits for EQIP-eligible producers. In Oregon alone, over \$20,000,000 has already been invested in restoration projects that generate water quality offsets, and another \$13,000,000 in credit transactions are planned over the next few years. Over 200 landowners, many of whom are EQIP-eligible, have or will soon participate in water quality trading programs by allowing conservation actions on their land, with attractive incentive payments in exchange. For this project, no CIG funds will be used to implement projects to generate credits or to provide payments to landowners. But a Joint Regional Agreement on Water Quality Trading offers significant long-term benefits for EQIP-eligible producers, as a new revenue stream that encourages conservation practices on farms, forests and ranches.

L. Certifications

SF424B

M. DUNS Number

N. CCR registration